COURSE ASSESSMENT REPORT (CAR)

Computer Science Programme

Database Management Systems - IS 232

Second Semester 2016-2017

Submitted By

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Version 8-Released on 17-May-2017

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GUIDELINES FOR COURSE ASSESSMENT

1. Assessment means primarily the assessment of student outcomes covered by the course. Other additional types of assessment can be used if useful (such as the online student survey or other assessment techniques

2. Assessment is mandatory for all courses in each semester. Each faculty member teaching a course must produce a course assessment report (CAR) as part of the course field

3. CAR must contain both direct assessment (opinion of the teacher using quizzes, exams, assignments, etc.) and indirect assessment (opinion of students through surveys).

4. Each faculty member must keep his data at the most detailed level (marks by student, by outcome, and by quiz/exam/assignment, etc.). Having the data at the detailed level will serve as evidence. It will also allow generating any aggregation we might need later.

5. Assessment must be based primarily on the percentage of students achieving the very good-excellent levels for a specific student outcome rather than the average score of all students in a specific outcome.

6. The attainment of student outcomes must be judged primarily by using the percentage of students achieving the very good-excellent levels and cannot be judged by using the average score of all students in a specific outcome. The AVG score can be used as additional and informative only.

7. Levels of satisfaction are defined as follows:
a. For direct assessment:
• Excellent is given to a student whose score in a specific outcome is above 90%.
• Very Good is given to a student whose score in a specific outcome is between 80% and 90%,
• Good is given to a student whose score in a specific outcome is between 70% and 80%,
• Fair is given to a student whose score in a specific outcome is between 60% and 70%,
• Unsatisfactory is given to a student whose score in a specific outcome is 60% or lower,

B. For indirect assessment:
• Excellent: corresponds to Strongly Agree in a specific outcome.
• Very Good corresponds to Agree in a specific outcome.
• Good: corresponds to Neutral in a specific outcome.
• Fair: corresponds to Disagree in a specific outcome.
• Unsatisfactory: corresponds to Strongly Disagree in a specific outcome.

8. The final judgment of the attainment of student outcomes is based on the followings:

Exceeds Expectations	**Meets Expectations**	**Progressing Towards Expectations**	**Does Not Meet Expectations**
EE	**ME**	**PE**	**DNME**
80% or more of students are achieving the satisfactory level or above	70% - 80% of students are achieving the satisfactory level or above	60% - 70% of students are achieving the satisfactory level or above	Below 60% of students are achieving the satisfactory level or above

9. When analyzing the results of the assessment of a course, we must necessarily pay attention to the following cases:

- Cases where we have DNME in a specific outcome.
- Cases where we have PE in a specific outcome.

- Cases where we have an important discrepancy (let's say > 15%) between direct and indirect assessment for a specific outcome; especially if the direct assessment (opinion of teacher) is much higher than the indirect assessment (opinion of students).
- Online Student Survey: if we have questions with DNME or PE, we should also comment them.

10. The analysis of the assessment results must be oriented towards:

- Identifying the reasons, issues, and root causes behind the non-attainment of a specific outcome.
- Determining corrective actions to be taken in the following semester to resolve those issues.

11. At the end of each semester / beginning of following semester, an assessment meeting will be held at the department level in order to evaluate the teaching achievements and issues of the past semester based on course assessment reports done for each course taught. An improvement plan will result based on that meeting. All faculty members should be involved and work to implement the improvement plan during the following semester.

1. Course Summary

Course Code and Title	Database Management Systems - IS 232
Semester	Second Semester 2016-2017
Instructor	Prof. SARAVANAN VENKATARAMAN TIRUMALAI
Course Format	3 (3, 0, 1) - 3 hours lecture and 1 hour exercise per week
Number of Students	10

2. Course Delivery (Topics Planned versus Topics Covered)

a. List the topics you covered in the course and discuss if there was any discrepancy with what was planned/intended in the Syllabus in the beginning of the course

Topics Covered	Planned contact Hours	Actual Contact Hours	Reason for Variations if there is a difference of more than 25% of the
DBMS architecture and administration; centralized and client-server approaches	4	4	
System catalog, and data dictionary	4	4	
Transaction management; concepts, characteristics, and processing	4	4	
Recovery techniques	4	4	
Concurrency control techniques	4	4	
Serializability & Deadlock	4	4	
Locking schemes	4	4	
Time-stamp ordering	4	4	

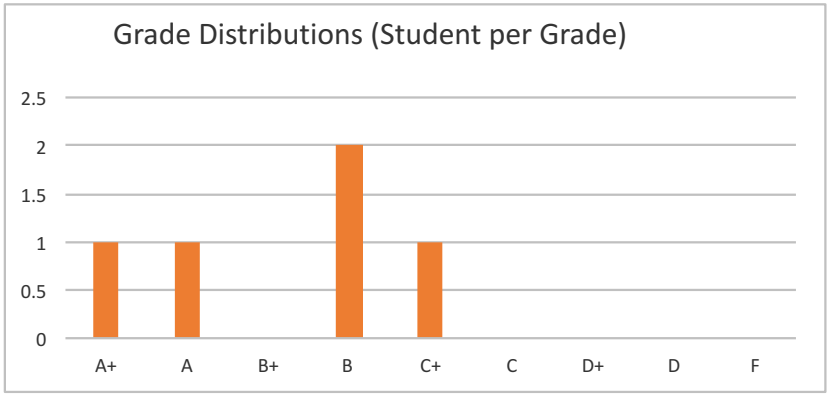
Multi-version, and optimistic techniques	4	4	
Database Security	4	4	
Distributed Databases	4	4	
Distributed DBMS	4	4	
Data fragmentation and replication	4	4	
Distributed transactions management	4	4	
Revision	4	4	
Total	60	60	

b. Explain what are the consequences of the non-coverage of topics (if any)

Non-Coverage of Planned Topics		
Topics (if any) not (Fully) Covered	**Significance of Lack of Coverage (low-medium-high)**	**Possible Compensating Action Elsewhere in the Program**

3. Grade Distribution

Grade	#Students	Percentage(%)
A+	1	10
A	1	10
B+	0	0
B	2	20
C+	1	10
C	0	0
D+	0	0
D	0	0
F	0	0



4.Direct and Indirect Assessment

4.1 Course Learning Objectives (CLO's) and Student Outcomes (SO's) Covered by the Course

a. Course Learning Objectives (CLO)

The student is expected to be able to:

CLO1	Recognize the main functions of database management.
CLO2	Analyse an algorithm for query processing and to optimizing it.
CLO3	Learn transaction management, concurrency and recovery of a database.
CLO4	Practice the importance of database security and authentication of users.
CLO5	Understand the need for distributed systems and how databases are distributed.

CLO6	
CLO7	
CLO8	
CLO9	
CLO10	

b. Student outcomes (SO)

Student outcomes addressed by the course are as follows (as defined in the syllabus of the course):

- [x] (a): An ability to apply knowledge of computing and mathematics appropriate to thedixscipline
- [x] (b) An ability to analyse a problem, and identify and define the computing requirements appropriate to its solution
- [x] (c) An ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs needs
- [ ] (d) An ability to function effectively on teams to accomplish a common goal
- [ ] (e) An understanding of professional, ethical, legal, security, and social issues and responsibilities
- [ ] (f) An ability to communicate effectively with a range of audiences.
- [ ] (g) An ability to analyze the local and global impact of computing on individuals, organizations and society.
- [ ] (h) Recognition of the need for, and an ability to engage in, continuing professional development
- [ ] (i) An ability to use current techniques, skills, and tools necessary for computing practices.
- [x] (j) An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
- [x] (k) An ability to apply design and development principles in the construction of software systems of varying complexity.

Mapping between CLO and SO											
	Student Outcomes										
	a	b	c	d	e	f	g	h	i	j	k
CLO1	Yes									Yes	
CLO2	Yes	Yes									Yes
CLO3			Yes								
CLO4		Yes								Yes	
CLO5		Yes	Yes								Yes
CLO6											
CLO7											
CLO8											
CLO9											
CLO10											

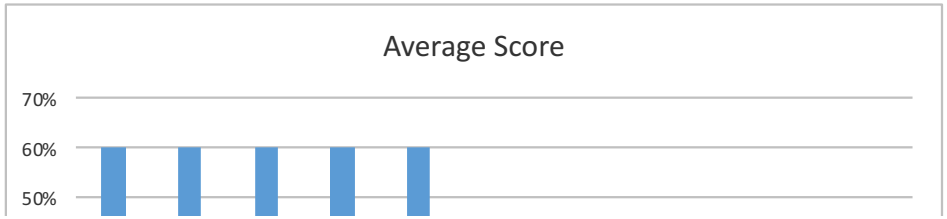
4.2 Attainment of Course Learning Objectives (CLO) and Student Outcomes (SO) through indirect assessment

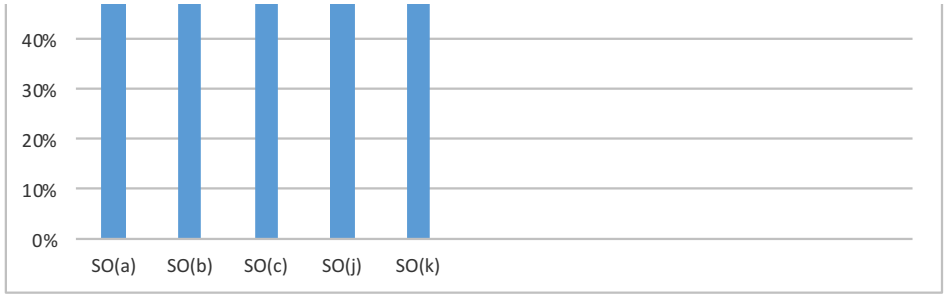
The summary of the course learning outcomes survey conducted with students at the end of the course is given below.

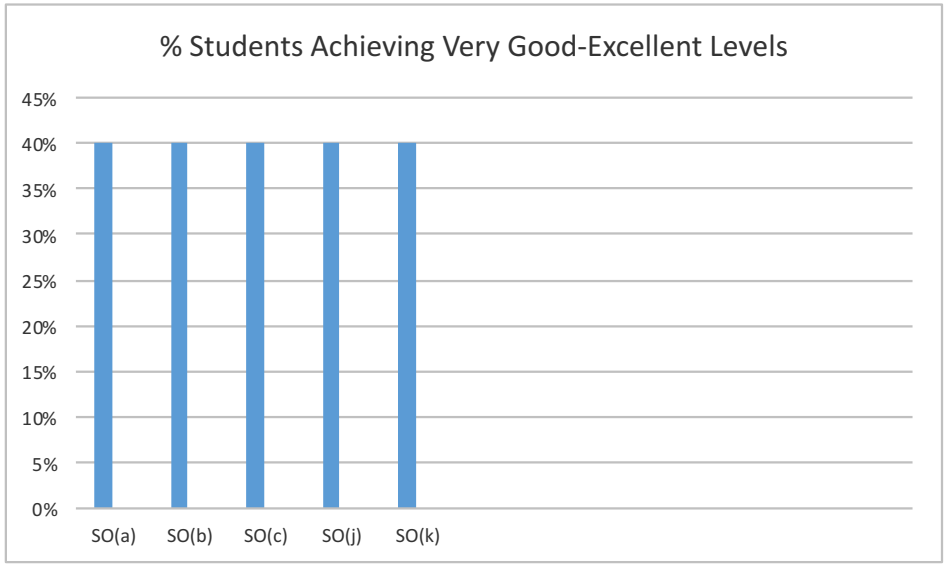
	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Total
CLO1	20%	20%	20%	20%	20%	100%
CLO2	20%	20%	20%	20%	20%	100%
CLO3	20%	20%	20%	20%	20%	100%
CLO4	20%	20%	20%	20%	20%	100%
CLO5	20%	20%	20%	20%	20%	100%
CLO6						
CLO7						
CLO8						
CLO9						
CLO10						

The summary of the student outcomes is given below.

SO	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Total	Weighted Average Score	% Students Achieving Very Good-Excellent Levels (Agree & Strongly Agree Levels)	Number of Students Achieving Very Good-Excellent Levels (Agree & Strongly Agree Levels)
SO(a)	20%	20%	20%	20%	20%	**100%**	**60%**	**40%**	**4**
SO(b)	20%	20%	20%	20%	20%	**100%**	**60%**	**40%**	**4**
SO(c)	20%	20%	20%	20%	20%	**100%**	**60%**	**40%**	**4**
SO(j)	20%	20%	20%	20%	20%	**100%**	**60%**	**40%**	**4**
SO(k)	20%	20%	20%	20%	20%	**100%**	**60%**	**40%**	**4**







4.3 Attainment of Student Outcomes (SO) through Direct Assessment

Direct assessment of attainment of student outcomes considers exams, quizzes, and project/homework done by students during the whole semester and proceeds as follows:

*Assign each question in each quiz, exam, homework, assignment, etc. to a specific student outcome

*Count the marks allocated to each outcome

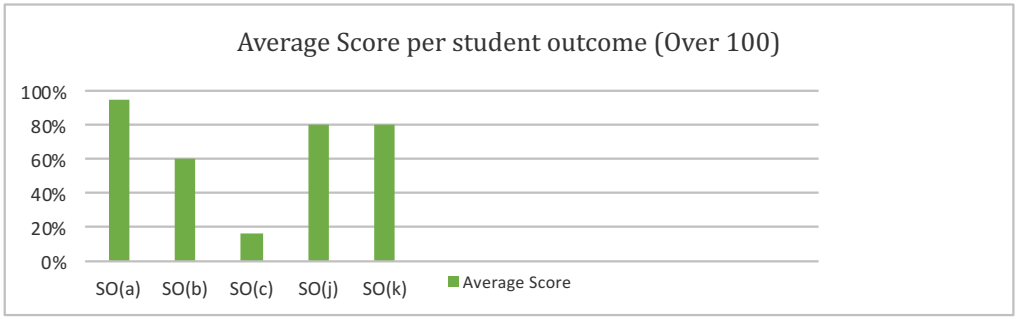
*Count the average score achieved by students in each outcome

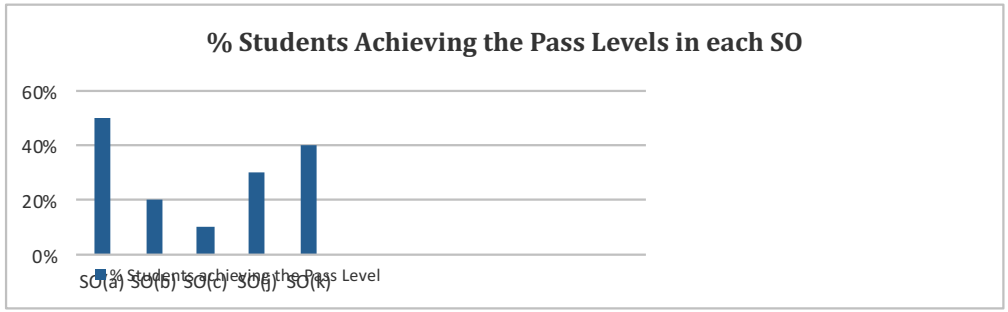
*Count the Number of students achieving the satisfactory level

4.3.1 When using the Average score for each student outcome

Student Outcome	Plannned Total Marks For Each Outcome	Actual Average Marks Obtained	Average Score	% Students achieving the Pass Level	Number of Students achieving the Pass Level
SO(a)	40	38	95%	50%	5
SO(b)	20	12	60%	20%	2

SO(c)	30	5	17%	10%	1
SO(j)	5	4	80%	30%	3
SO(k)	5	4	80%	40%	4



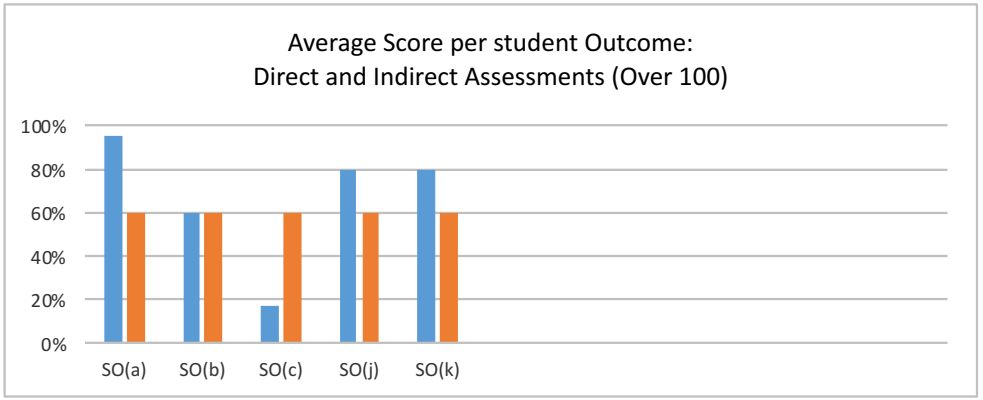


4.4 Summary

Summary of the results for both direct and indirect assessment using both the average score as well as the percentage of students achieving the satisfactory/exemplary levels is given below.

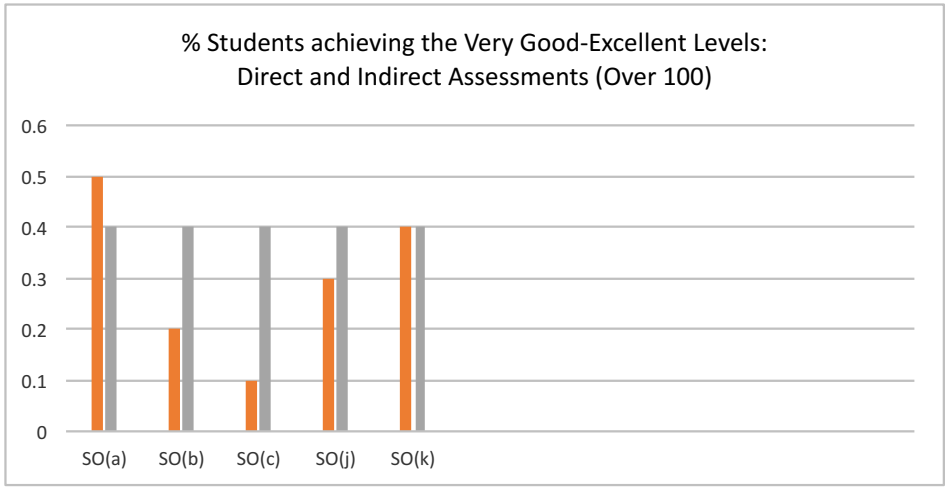
4.4.1 When using the Average score for each student outcome

Student Outcome	Direct Assessment - Average Score	Indirect Assessment - Average Score
SO(a)	95%	60%
SO(b)	60%	60%
SO(c)	17%	60%
SO(j)	80%	60%
SO(k)	80%	60%



4.4.2 When using the percentage of students achieving the satisfactory-exemplary levels in each student outcome

Student Outcome	Direct Assessment -% Students achieving the Pass Level	Indirect Assessment - % Students Achieving Very Good-Excellent Levels (Agree & Strongly Agree Levels)
SO(a)	50%	40%
SO(b)	20%	40%
SO(c)	10%	40%
SO(j)	30%	40%
SO(k)	40%	40%



4.4.3 Attainment of student outcomes

The degree of attainment of student outcomes according to direct and indirect assessment, by using both the average score and the % of students achieving the satisfactory-exemplary levels, is as follows:

SO	Indirect		Direct	
	When using the AVG score	When using % students achieving the very good / excellent levels	When using the AVG score	When using % students achieving pass levels
SO(a)	PE	DNME	EE	DNME
SO(b)	PE	DNME	PE	DNME
SO(c)	PE	DNME	DNME	DNME
SO(j)	PE	DNME	EE	DNME
SO(k)	PE	DNME	EE	DNME

5. Learning Barriers and Issues

Based on indirect assessment (point of view of students) and direct assessment (point of view of the instructor) the main issues/barriers that come out are as follows:

1
2
3
4
5

6
7
8
9
10

6 Planned Improvements

The main actions that will be taken in the next semester to resolve the issues mentioned previously are as follows:

1
2
3
4
5
6
7
8
9
10

7 Progress on Actions Proposed for Improving the Course in Previous CAR

Actions Reccommended	Action Taken	Action Results
1		
2		
3		
4		

Instructor : Prof. SARAVANAN VENKATARAMAN TIRUMALAI

Date	:	11/29/17
Signature	:	
Programme Coordinator	:	
Date	:	11/29/17
Signature	:	